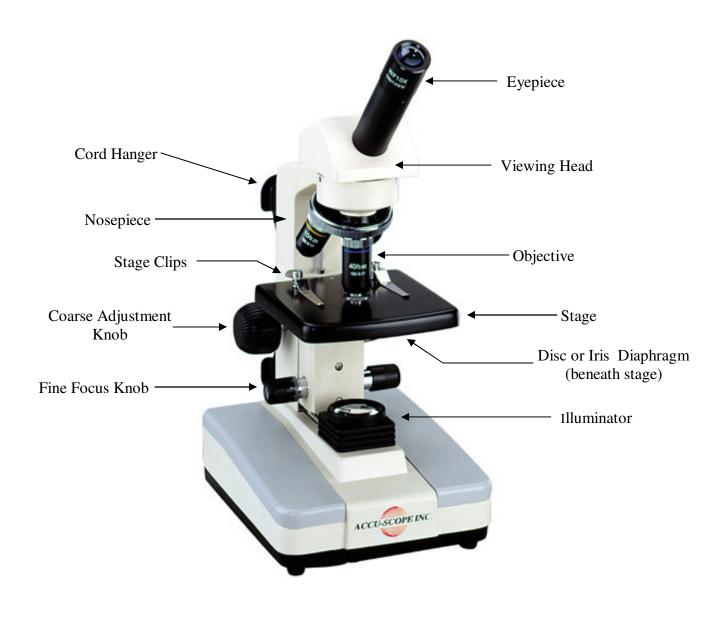


3088 MICROSCOPE SERIES **INSTRUCTIONS**



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3088F MICROSCOPE SERIES

1.0 INTRODUCTION

Congratulations on the purchase of your new ACCU-SCOPE microscope. ACCU-SCOPE microscopes are engineered and manufactured to the highest quality standards. Your ACCU-SCOPE microscope will last a lifetime if used and maintained properly. From schools to technical institutes, hobbyists to home schooling, ACCU-SCOPE's 3088F Microscope Series has applications wherever clinical specimen viewing is needed.

2.0 UNPACKING

Your microscope arrived packed in a molded styrofoam container. **Do not discard the styrofoam container**; the styrofoam container should be retained for reshipment of your microscope if needed. Avoid placing the microscope in dusty, high temperature or humid areas as mold and mildew may form.

Carefully remove the microscope from the styrofoam container by its arm and base. Place the microscope on a dry, flat, vibration free surface. Now check the components with the following standard equipment list:

- 1. Stand, which includes the supporting arm, focusing mechanism, stage, nosepiece, disc or iris diaphragm, cord hanger, and illumination system.
- 2. Monocular or teaching head (depending on model ordered).
- 3. Eyepiece and objectives as ordered.
- 4. Dust cover.

3.0 ASSEMBLY

The microscope is completely pre-assembled.

3.1 OBJECTIVES

The objectives are pre-installed by our factory technicians prior to delivery. To change the magnification of the objectives, the nosepiece should be rotated in a clockwise direction. Rotate until a click is heard to insure the optical path is properly aligned.

3.2 VIEWING HEAD, EYEPIECES, CONDENSER AND DIAPHRAGM

The above items are pre-installed at our assembly facility in New York prior to delivery.

3.3 VOLTAGE CHECK

Confirm that the input voltage indication at the rear or bottom of the microscope corresponds to your line voltage. The use of a different input voltage indication will cause severe damage to your microscope.

4.0 OPERATION

Plug the 3-prong line cord into a grounded 120v A.C. electrical outlet. Turn the illuminator switch to "ON."

4.1 FOCUSING

Turn the coarse adjustment knob counterclockwise this will lower the stage. Place a specimen slide on the center of the stage. Using the 4x objective bring the specimen into focus using the coarse and fine controls. Different objectives can be brought into view by revolving the nosepiece and using the fine adjustment knob because the objectives are parfocal. Each ACCU-SCOPE 3088F microscope is supplied with either a disc or iris diaphragm, depending on the model ordered. The amount of light can be adjusted by opening or closing the iris diaphragm or by turning the disc diaphragm. Adjust the diaphragm to the smallest size allowable for a clear, sharp image of the specimen.

5.0 MAINTENANCE

Please remember to <u>never</u> leave the microscope with any of the objectives or eyepieces removed, and always protect the microscope with the dust cover when not in use.

5.1 CLEANING THE MICROSCOPE

Accumulated dirt on the metal surface should be cleaned with a damp cloth. More persistent dirt should be removed using a mild soap solution. The outer surface of the optics should be inspected and cleaned periodically using an air stream from an air bulb or compressed air. If dirt remains on the optical surface use a soft cloth or cotton swab dampened with a lens cleaning solution (available from any camera store). Optical lenses should always be cleaned in a circular motion. A small amount of absorbent cotton wound on the end of a tapered stick makes for a useful tool for cleaning recessed optical surfaces. Avoid using an excessive amount of solvents as this may cause problems with cemented optics or the flowing solvent may pick up grease from the mounts making cleaning more difficult.

5.2 LAMP REPLACEMENT

The illuminator lamp is the only item on your ACCU-SCOPE microscope that requires periodic replacement. Always UNPLUG the microscope before replacing the bulb. Carefully rest the microscope on its back. Unscrew the thumbscrew on the bottom plate of the microscope. After the lamp has cooled remove the old lamp from the socket. Without directly touching the surface of the new bulb with your fingers, fully place the bulb into the socket. Reattach the bottom plate with the two thumbscrews. Never operate the microscope unless the bottom plate is secured properly. Return the microscope to the upright position.

Replacement bulbs – The 3088F microscope uses Catalog No. 3368, 5 watt fluorescent bulb. Replacement bulbs and other parts and accessories are available from your authorized ACCU-SCOPE dealer.

5.3 SERVICE

ACCU-SCOPE microscopes are precision instruments that require periodic servicing to keep it performing properly and to compensate for normal wear. A regular schedule of preventative maintenance by qualified personnel is highly recommended. Your authorized ACCU-SCOPE distributor can arrange for this service. Should you experience a problem with the microscope proceed as follows:

- 1. Contact the ACCU-SCOPE distributor from whom you purchased the microscope. Some problems can be resolved easily over the telephone.
- 2. If it is determined the microscope should be returned to your distributor or ACCU-SCOPE for warranty repair pack the instrument in its original styrofoam shipping carton. If you no longer have this carton pack the microscope in a crush resistant carton with a minimum of three inches of shock absorbing material surrounding it to prevent in-transit damage. The microscope should be wrapped in a plastic bag to prevent styrofoam dust from damaging the microscope.
- 3. Enclose a detailed letter in the shipping carton describing the nature of the problem, your name, address and telephone number.

ACCU-SCOPE LIMITED WARRANTY

This microscope is warranted to be free from defects in material and workmanship for a period of five years from the date of invoice to the original (end user) purchaser. This warranty does not cover damage caused in-transit, misuse, neglect, abuse or damage resulting from improper servicing or modification by other then ACCU-SCOPE approved service personnel. This warranty does not cover any routine maintenance work or any other work that is reasonably expected to be performed by the purchaser. Normal wear is excluded from this warranty. No responsibility is assumed for unsatisfactory operating performance due to environmental conditions such as humidity, dust, corrosive chemicals, deposition of oil or other foreign matter, spillage or other conditions beyond the control of ACCU-SCOPE INC. This warranty expressly excludes any liability by ACCU-SCOPE INC. for consequential loss or damage on only grounds, such as (but not limited to) the non-availability to the End User of the product(s) under warranty or the need to repair work processes. All items returned for warranty repair must be sent freight prepaid and insured to ACCU-SCOPE INC., 73 Mall Drive, Commack, NY 11725 – USA. All warranty repairs will be returned freight prepaid to any destination within the Continental United States of America. Charges for repairs shipped back outside this region are the responsibility of the individual or company returning the merchandise for repair.

TROUBLESHOOTING GUIDE

If a problem occurs during the course of use, please refer to the tables below before contacting your ACCU-SCOPE distributor.

OPTICAL			
Problem	Cause	Corrective Measure	
Darkness at the periphery or uneven brightness in the field of view	Revolving nosepiece not in click stop position	Revolve the nosepiece to click-stop position by swinging the objective correctly into the optical path	
Dirt or dust on the viewfield	Dirt or dust on the lens - eyepiece, condenser, objective, collector lens or specimen	Clean the lens	
Poor image quality	No coverglass attached to the slide	Attach a 0.17mm coverglass	
	Coverglass is too thick or thin	Use a coverglass of the appropriate thickness (0.17mm)	
	Slide may be upside down	Turn slide over so the cover- glass faces up	
	Immersion oil is on a dry objective (especially the 40xR)	Check the objectives, clean if necessary	
	No immersion oil used with 100xR objective	Use immersion oil	
	Air bubbles in immersion oil	Remove bubbles	
	Condenser aperture is closed or open too much	Open or close properly	
	Condenser is positioned too low	Position the condenser at the upper limit	

IMAGE PROBLEMS			
Image moves while focusing	Specimen rises from stage surface	Secure the specimen in the slide holder	
	Revolving nosepiece is not in the click-stop position	Revolve the nosepiece to the click-stop position	
Insufficient brightness	Aperture diaphragm closed too far	Open to the proper setting	
	Condenser position too low	Position the condenser at the upper limit	
MECHANICAL PROBLEMS			
Image will not focus with high power objectives	Slide upside down	Turn the slide over so the cover glass faces up	
	Cover glass is to thick	Use a 0.17mm cover glass	
High power objective contacts slide when changed from low power objective	Slide upside down	Turn the slide over so the cover glass faces up	
low power objective	Cover glass is to thick	Use a 0.17mm cover glass	
	Diopter adjustment is not set properly	Readjust the diopter settings	
Lamp does not light when switched on	No electrical power	Check power cord connection	
	Lamp bulb burnt out	Replace bulb	
	Fuse blown out	Replace fuse	
Slippage of focus when using the coarse focusing knob	Tension adjustment is set too low	Increase the tension on the focusing knobs	
Fine focus is ineffective	Tension adjustment is set too high	Loosen the tension on the focusing knobs	